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Method and Apparatus for Providing a Personal Information Directory On the Internet So As to Reveal Personal Information On a Selective Basis

Background of the Invention

Many people would like to list their e-mail addresses, residential addresses, and telephone numbers in directories located on the Internet so that their friends and colleagues may contact them. These directories include, by way of example, anywho.com, switchboard.com, bigfoot.com, Yahoo! People search at people.yahoo.com, and whowhere.com. The party listing their personal contact information will be known as the "listing party," and the party seeking the contact information of the listing party will be called the "querying party."

These web-based directories operate on a common principal—the querying party goes to the appropriate website and then enters the name of the person they are trying to search (the listing party), and the search engine finds the listing party's e-mail (or other contact information such as residential address and telephone number) and displays it to the querying party. Some of these directories ask the querying party for additional information apart from the name of the listing party, such as the city and state of the listing party, or the domain name of the e-mail address of the listing party. The web-based directories serve an important function. It is of great interest to the listing party to be found by desired contacts, friends and acquaintances. It also is of interest to the querying party that these directories be complete enough so the querying party can contact that long lost high school friend or college study-mate. Being listed in a web-based directory is often as important if not more important than being listed in the phone book because it is a cost efficient mechanism for being contacted from afar. Most people do not have phone books for areas they do not live and long-distance

directory information is expensive. Exacerbating the problem is the fact that many querying parties do not know the particular city or even state of the person they are looking for, making the ability to perform a nationwide search that more critical. Of course, telephone directories do not have e-mail addresses making on-line directories critical for those querying
5 parties that would like to reach their long lost friends by e-mail. When these web-based directories are incomplete, two people often suffer: the people who want to be contacted and those who would like to make the contact.

Unfortunately, due to privacy consideration, many people refuse to list their personal contact
10 information on databases that can be publicly accessed. These potential listing parties want to have their personal information made available to some people, but not everyone. Like the person that keeps their telephone number unlisted in published telephone directories, these people refuse to have their e-mail made available to the general public for fear of being barraged by unwanted e-mails, otherwise known as "SPAM." They are also afraid to have
15 their residential addresses be made available for fear of obtaining junk mail, and their telephone numbers made available for fear of receiving unsolicited and undesired telephone calls from telemarketers. Some people simply do not want their whereabouts or contact information made known to certain specific other parties, for an infinite variety of reasons. Like many who refuse to be listed in telephone directories, many do so for personal safety
20 reasons. The problem with current web-based directories is there is no ability to be a gatekeeper. Personal contact information is made available to anybody whether or not the listing party wants to be contacted by the querying party. Once you are listed, everybody—good, bad, and indifferent—has access to the personal contact information.

The problem of unwanted contact is heightened by heavy marketing activities of commercial interests seeking to expand their customer bases. These techniques are commonly referred to as “mass marketing.” These efforts include mass paper mailings, telephone cold-calling and mass electronic mailings (commonly called “spam”). As the cost of making a contact
5 decreases, the percentage of efforts that needs to be successful to justify the cost of the marketing effort decreases. Depending on the campaign type cost, between one-percent to five-percent of contacted parties need only respond to a marketing effort to justify the marketing expenses. As the cost of these methods of communication declines and the required success rate in turn declines, the prevalence of these campaigns increase. Cheaper
10 marketing means more marketing. Advertisers have less incentive to limit their marketing efforts to those targeted to be more likely to buy a particular good or service. Because each solicitation is so inexpensive, advertisers can afford to be indiscriminate.

The problem is especially compounded on the Internet. Since sending e-mail is practically
15 free, substantially less than one percent of all contacted parties need respond to pay for the marketing expenses associated with sending an e-mail. There is no need to target the marketing effort to groups that are more likely to be interested in a particular product or service. Consequently, spamming has become a widespread problem. People who place their e-mail information on public directories often find a plethora of unwanted e-mails cluttering
20 their day, as they turn on their computers. Not only is this annoying, but it is a waste of time, and ultimately leads to lower productivity as workers sort through e-mail that have nothing to do with their work. Since many people have a limited amount of memory and space available for e-mail, spam e-mail clutters limited amount of memory available for e-mail.

The problem is not just limited to e-mail. Unsolicited telephone calls are annoying and often come at inopportune times. Even mailed solicitations take a certain amount of time to sort through before it can be identified and dismissed as junk. As a result, many people make their personal contact information unavailable to the public.

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Accordingly, most directories of personal contact information have enormous gaps in their coverage. Finding an e-mail address of most people is a near impossibility. As a result of these incomplete on-line directories, people who have lost contact with a particular individual are deprived of the most efficient and inexpensive means of locating them. Querying parties
10 with whom the listing party would like to make contact have no way of making the contact since the contact information is not made generally available in a directory. They cannot find their lost friend's e-mail, telephone number, address and other contact information. Currently, a party with information that they might want to list must choose between not allowing a desirable querying party to easily contact them or suffering a steady stream of
15 unwanted solicitous contacts. The problem, as mentioned earlier, is most severe for email directories where there is virtually no cost associated with the contact effort. Thus, e-mail information is often kept under closer guard than other types of personal information since it is the most likely to be abused. Ultimately, the cheapest and most effective way of contacting an old friend or acquaintance—e-mail—is the most likely to be made not available by the
20 listing party.

What is needed is a way to be contacted by people by whom one wants to be contacted, while not being contacted by people sought to be avoided. What is needed is a way to allow listing parties to provide personal information to querying parties with whom the listing party

desires to be contacted, while at the same time hiding the information from querying parties whom the listing party does not want to communicate.

Summary of the Invention

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The invention is a method and apparatus for people who would like to list their information in directories (the "listing party") to distribute their personal contact information (such as their personal e-mail address, telephone number, pager number, and fax number) to only those people inquiring about their personal information (the "querying party") by whom the listing
10 party wants to be contacted. The method employs a bridge website as a directory for electronic mail addresses, telephone numbers, pager numbers, fax numbers, street addresses, and any combination thereof. In the first embodiment of the invention, the listing party approves or denies a request for personal contact information after the querying party who is seeking the personal contact information is identified. In a second embodiment of the
15 invention, the listing party may opt to agree to automatic personal information disclosure if the querying party provides personal information about themselves that conforms to certain pre-established parameters set by the listing party. The preferred embodiment of the invention is performed on the Internet. It is foreseeable that the invention may be practiced without the use of the Internet.

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Brief Description of the Drawings

Figure 1(a) is a figure of the website-based personal contact information inquiry system.

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Figure 1(b) is a figure of the apparatus for storing personal contact information of the website-based personal contact information inquiry system.

Figure 2 is a figure of the website-based personal contact information inquiry signal wherein
5 the personal information is received by the querying party's telephonic peripheral.

Figure 3(a) is a figure of the website-based personal contact information inquiry signal wherein the query notification signal is received by a telephonic peripheral instead of a computer.

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Figure 3(b) is a figure of the website-based personal contact information inquiry signal wherein the query notification signal is received by the listing party using a telephonic peripheral instead of a computer, and the listing party's telephonic peripheral also generates the 46 consent/no consent signal in place of a computer.

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Figure 4 is a second embodiment of the invention wherein personal contact information of the listing party is provided to the querying party if the querying party provides certain personal information that falls within parameters set by the listing party.

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Detailed Description of the Invention

The invention herein described in the description and the diagrams is illustrative only of the preferred embodiment of the invention. The claims or their equivalents should not be interpreted to be limited to the preferred embodiments of the invention herein described.

5 Figure 1(a)

This invention, a 9 web-based personal contact information system, is shown in Figure 1(a). It is comprised of a method and apparatus for connecting a 10 querying party to a 12 listing party without divulging the personal information of the 12 listing party unless voluntarily
10 revealed by the 12 listing party. The method employs a 16 bridge website created by a 18 bridge website server which has a 17 personal contact information directory database that stores personal information. The 18 bridge website server is a server that is located on the 20 Internet. By "server" it is meant any computer, sub-component of a computer, or group of computers, or any combination thereof, that possesses the capacity of maintaining a
15 client/server environment on the Internet. Accordingly, the 18 "bridge web-site server" may be comprised of any computer, sub-component of a computer, or group of computers, or any combination thereof, that is available on the Internet.

The 16 bridge website has a 42 URL (universal resource locator) which is entered by the 10
20 querying party. The 10 querying party uses the 40 web browser and 41 modem of the 24 querying party's computer, using well-known web site access methodologies. The 17 personal contact information directory database stores such information as the 26 e-mail address, 28 telephone number, 30 fax number, 32 pager number, and 34 street address of the 12 listing party, as well as additional information as determined appropriate by the 12 listing

party. The mechanism for storing such information is detailed in Figure 1(b), which is discussed *infra*.

In order to obtain the 12 listing party's personal contact information, the 10 querying party
5 sends a 22 querying-signal from the 24 querying party's computer to the 18 bridge website.

A "querying signal" is defined as one or more signals sent in any sequence or simultaneously that embodies both a request for the personal contact information of the 12 listing party *and* embodies a communication of information about the 10 querying party, regardless of whether the querying signal is received in its original condition as sent by the querying party or is
10 otherwise transformed before it is received by the 18 bridge website server. In the preferred embodiment of the invention, the 22 querying signal follows the TCP/Internet Protocol and the 24 querying party's computer is a personal computer. The 10 querying party uses a 40 web browser and 41 modem which is located on the 24 querying party's computer, and enters the 42 URL of the 16 bridge website located on the 18 bridge website server. By the term
15 "modem," it is meant any device that allows one computer to communicate with a remote computer, whether it be over telephone lines, a cable or a T1 line. The 18 bridge website server has a 43 registration facility which is defined as a device capable of receiving the 10 querying party's personal information, storing it, and transmitting it to the 12 listing party. Web pages capable of receiving personal information (such as name, address, telephone
20 number, e-mail address or credit card) from the person visiting the web site are well known in the art and are commonplace. In many instances, the 43 registration facility of the 18 bridge website server will simply store the name of the 10 querying party, but other information may be stored as well, such as the querying party's telephone number, e-mail address, or other contact information so that the 12 listing party may contact them directly. The information to
25 be stored is entirely up to the 12 listing party.

After the 22 querying signal has been received by the 18 bridge web site server and the information of the 10 querying party is stored in the 43 registration facility, a 44 query notification signal is sent to the 12 listing party. The 44 query notification signal is
5 comprised of one or more signals sent in any sequence or simultaneously from the 18 bridge web site server to the listing party that embodies both a notification that there has been a request for the personal contact information of the 12 listing party and also embodies a communication of identifying information about the querying party, regardless as to whether the 44 querying notification signal is modified or altered along its path from the 18 bridge
10 web site server to the 12 listing party. The 46 consent/no consent signal is comprised of one or more signals sent in any sequence or simultaneously from the 12 listing party to the 18 bridge web site server that embodies an instruction as to what personal information, if any, is to be sent to the 10 querying party, regardless as to whether the 46 consent/no consent signal is modified or altered along its path from the 12 listing party to the 18 bridge web site server.
15 In one preferred embodiment, as shown in Figure 1(a), the 44 query notification signal is sent to the 13 listing party's computer in the form of e-mail, e-mail with a voice attachment, or a real time Internet telephone call message. The 44 query notification signal reveals the fact that someone is trying to contact the 12 listing party and provides identifying personal information of the 10 querying party that was stored in the 43 registration facility of the 18
20 bridge website server.

After the 12 listing party receives the 44 query notification signal and has been appraised of the personal information of the 10 querying party, the 12 listing party may simply decide to contact the 10 querying party directly and make no further use of the 9 web-based personal
25 contact information system.

Alternatively, the 12 listing party may send a 46 consent/no-consent signal to the 18 bridge website server. The 46 consent/no-consent signal directs the 18 bridge website server as to what information in the 17 personal contact information directory database is to be sent to the
5 10 querying party, if any information is to be sent at all. According to what information is contained in the 46 consent/no-consent signal, the personal contact information of the listing party, such as the 26 e-mail address, the 28 telephone number, 30 fax number, 32 pager, or 34 street address (or any combination thereof) of the 12 listing party is sent from the 17 personal contact information directory database of the 18 bridge website server to the 10 querying
10 party in the form of a 50 personal contact information signal. The 50 personal contact information signal contains the information from the 17 personal contact information directory that the 12 listing party wanted to make available to the 10 querying party.

In the preferred embodiment of the invention, the 50 personal contact information signal
15 conforms to the TCP/IP protocol and is in the form of e-mail or e-mail with a voice attachment. In another embodiment of the invention, the personal contact information contained in the 50 personal contact information signal is in the form of analog telephone call to a pager with a screen display, or is in the form of a voice telephone call using voice/character recognition technology, as shown in Figure 2 which will be further explained
20 infra. Once the 10 querying party has the personal contact information of the 12 listing party, a personal contact has been made possible without having to make this personal information generally publicly available.

Figure 1(b)

Figure 1(b) shows how the 12 listing party uses their 13 computer equipped with a 52 web browser and 53 modem and which is connected to the Internet 20 to store the personal information they want made available to others. Once the 16 bridge website (which is generated by the 18 bridge website server) is accessed by the 12 listing party (by use of their 5 13 computer), upon the 12 listing party's hitting an icon of the 16 bridge website, the 18 bridge website server generates a 58 database questionnaire signal which is sent to the 13 computer of the 12 listing party. At that point, the 12 listing party will be prompted by the 58 database questionnaire signal as to the particular information he would like to make available by the 18 Bridge Website Server. By means of the 58 database questionnaire signal, the 12 10 listing party will be asked their 26 e-mail address, 28 telephone number, 30 fax number, 32 pager number, and 34 street address that they would like listed. In response to the 58 database inquiry signal, the 12 listing party supplies this information and it is sent via a 60 personal information storage signal from the 13 listing party's computer to the 18 bridge website server, where it is stored (and thereby "listed") in the 17 personal contact information 15 directory database. The 12 listing party may also be asked to provide additional information as determined appropriate by the 12 listing party. For instance, the 12 listing party may decide to make available the hours that they can be located at their residence, or they may decide to provide their business telephone number, or the particular telephone number at which they can be located at during a certain period of time. They may even decide to leave 20 messages. The type of personal information that may be left is endless. The personal contact information remains in the 17 personal contact information database until the 12 listing party directs it to be sent to the 10 querying party (not shown in Fig. 1(b)).

Figure 2

Figure 2 shows another embodiment of the 9 web-based personal contact information system. Note that it is essentially identical to Figure 1(a) with the difference being in how the 10 querying party receives the personal contact information of the 12 listing party. Instead of the 50 personal contact information signal being received by the 24 querying party's computer as shown in Figure 1(a), the 50 personal contact information signal (which contains the personal contact information of the listing party) is sent to a 54 telephonic peripheral(s) of the querying party which may be a telephone, a telephone with a screen display, a pager or 10 any other telephonic device. Where the information is not displayed on a screen, well-known character recognition software is utilized, which is capable of translating a word in electric format to voice.

Figure 3(a)

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Figure 3(a) shows another embodiment of the 9 web-based personal contact information system. Figure 3(a) is identical to Figure 1(a) with the exception that the 44 query notification signal (which notifies the listing party that someone has inquired about their personal information) is received by a 56 telephonic peripheral of the listing party such as a 20 telephone, pager with screen display, or telephone with screen display, as opposed to the 13 listing party's computer as in Figure 1. The 44 query notification signal is composed in whole or part of a telephone call simply informing the 12 listing party that there has been a query, or may read the information stored in the registration facility using character recognition software so as to apprise the 12 listing party as to the nature or identity of the 10 querying 25 party. The telephone call may either be to a POTS telephone, any form of wireless phone

including digital, a pager, or any other peripheral device capable of receiving a continuous analog telephone signal. In the embodiment where the 44 query notification signal is in the form of a telephone, the telephone call would reveal the personal information of the 10 querying party. If the telephone call is to a telephone such as a POTS (plain old telephone
5 service), or other form of wireless phone, the 18 bridge website server would have character/voice recognition software so that the personal information of the 10 querying party may be read to the 12 listing party. If the telephone call is to a pager with a screen display, the personal information of the 10 querying party may be displayed on the screen of the pager. Once notified, the 12 listing party uses his or her 13 computer and sends a 46
10 consent/no consent signal so as to dictate what, if any, of their personal information will be sent, as previously described in Fig. 1(a).

Figure 3(b)

15 Figure 3(b) is similar to Figure 3(a) with the exception that the 56 listing party's telephonic peripheral generates the 46 consent/no consent signal itself. Thus, the 12 listing party may receive a 44 query notification signal to their cellular telephone with a screen display that serves as a 56 telephonic peripheral, and then sends a 46 consent/no consent
20 signal in the form of a DTMF signal (Touch Tone TM) that is recognized by the 18 bridge website server.

Figure 4

In another embodiment of the invention as shown in Fig. 4, it is not necessary to contact the
25 12 listing party directly after the 10 querying party queries for the personal information of the

12 listing party. Instead, the 10 querying party is given or denied access to the personal information depending on answers to questions (or a single question) posited to him or her by the 18 bridge website server. The 10 querying party is asked for personal information that was determined important by the 12 listing party. If the personal information provided by the 5 10 querying party falls within certain parameters established by the 12 listing party in advance, the 18 bridge website server provides the 10 querying party with pre-specified information contained within the 17 personal contact information data base. This information is limited to what the 12 listing party intended the 10 querying party to have, based upon their response to a 72 questionnaire stored on the 18 the bridge web site server. The 72 10 questionnaire is comprised of one or more questions.

For instance, the 12 listing party may allow all 10 querying parties that went to the same high school access to their phone number, e-mail, and street address, but only provide to people who went to the same college their phone number. The combinations of personal information 15 to be provided to the 10 querying party are virtually endless. The 12 listing party also has the option of sending various messages in conjunction with or to the exclusion of providing personal contact information. Such a message may be “I will be contacting you later” or “I will be at Steve’s house from 7:00 p.m. to 9:00 p.m.”

20 To set up the system, a 62 parameter inquiry signal is sent from the 18 bridge website server to the 13 listing party’s computer asking the 12 listing party as to what parameters are required to release certain personal contact information stored in the 17 personal contact information database to the 10 querying party. The parameter inquiry signal 62 is generated after the 12 listing party enters the 42 URL of the 18 bridge web site server, accesses the 16 25 bridge web site generated by the 18 bridge web site server, and hits an icon (not shown)

which is to be hit when the 12 listing party would like to set up the parameters for releasing his personal information. After hitting the icon, the 18 bridge web site server sends the parameter inquiry signal, which will appear as a questionnaire on the screen of the 13 listing party's computer. The technology for providing an on-line questionnaire is well known in
5 the art. The 12 listing party will indicate which personal contact information stored in the 17 personal contact information database is to be made available to the 10 querying party based upon the querying party's response to the 72 questionnaire.

The 12 listing party sends a 64 parameter requirements signal to the 18 bridge website server
10 using their 13 computer equipped with a 52 Web browser and a 53 modem. The 64 parameter requirements signal establishes the parameters wherein certain, if any, personal information contained in the 17 personal contact information directory database will be sent to the 10 querying party. The 64 parameter requirements signal generated by the 12 listing party may be comprised of one or more signals sent in any sequence or simultaneously to the
15 18 bridge website server that embodies the established parameters wherein certain, if any, personal contact information contained in the 17 personal contact information directory database of the 18 bridge website server will be sent to the 24 querying party, regardless as to whether the 64 parameter requirements signal is modified or altered along its path to the 18 bridge website server from the listing party.

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The 12 listing party establishes parameters for being contacted, such as name, age, demographic profile, address (be it street address, zip code, or geographical area), educational history, present school, employment, employment history, club memberships, interest, religion, parish affiliations, gender, family relations, passwords, or any systematic weighted
25 combination thereof. In the preferred embodiment, these criteria are stored in electronic

format on the 18 bridge website server in a 70 contact parameters database, which stores the parameters established by the 12 listing party for releasing personal information stored in the 17 personal contact information directory database.

5 After the system is set up, when the 10 querying party wants to obtain the personal information of the 12 listing party, as before, they access the 18 bridge website server using a 24 computer equipped with a 40 web browser and 41 modem. The 10 querying party enters the 42 URL of the 16 bridge website into the 40 web browser software to access the 16 bridge website. Unlike sending a 22 querying signal that embodies both a request for personal
10 contact information of the listing party and identifying information of the 10 querying party, a 90 request for information signal is sent. The 90 request for information signal, unlike the 22 querying signal in the previous embodiment, may consist solely of a request for the personal information of the 12 listing party. The information about the 10 querying party will be procured by means of a questionnaire. Instead of 12 listing party sending a consent/no
15 consent signal after reviewing the identity of the listing party, just what information will be sent to the 10 querying party will be determined by the querying party's response to the 72 questionnaire, and further involvement by the 12 listing party is not necessary. The 90 request for information signal is comprised of one or more signals sent in any sequence or simultaneously from the querying party that embodies a request for the personal contact
20 information of the listing party, regardless as to whether the querying signal is modified or altered along its path from the querying party to the bridge web site server

Unlike the other embodiment shown in Figure 1 wherein the 12 listing party is contacted after the 10 querying party requests the 12 listing party's personal contact information, a 72
25 questionnaire for the querying party is generated by the 18 bridge website server. This

obviates the necessity for any further involvement by the 12 listing party, though a courtesy 62 query notification signal (not show in Fig. 4) may be sent to the 12 listing party so that he or she can monitor requests for personal information. The 72 questionnaire for the querying party is sent via a 66 questionnaire signal for the querying party which is sent to the 24 5 querying party's computer. The questionnaire signal for the query party is comprised of one or more signals sent in any sequence or simultaneously from the bridge web site server to the 10 querying party that embodies a questionnaire for the 20 querying party, regardless as to whether the 66 questionnaire signal for the querying party is modified or altered along its path to the 24 querying party.

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Once the 10 querying party receives the 72 questionnaire that was sent in the form of a 66 questionnaire signal, the 10 querying party electronically replies to the questionnaire, answers some or all of its questions, and generate a 68 questionnaire response signal which is transmitted to the 18 bridge website server. When the 18 bridge web site server receives the 15 68 questionnaire response signal from the querying party it compares the information provided by the responses to the 72 questionnaire to the parameters for releasing personal contact information stored in the 70 contact parameters database. Based on the parameters (or lack of parameters) provided by the 10 querying party in the form of a 68 questionnaire response signal, the 18 bridge website server then either (1) generates a 50 personal contact 20 information signal to the querying party which provides them with the personal information and/or messages the 12 listing party determined was appropriate based on the parameters (or lack of parameters) received, or (2) provides no further information in response to the parameters (or lack of parameters) received, or (3) generates a second 66 questionnaire signal for the querying party asking for additional information, whereupon the 10 querying party 25 generates a second 68 questionnaire response signal which is again received by the 18 bridge

web site server, and the process of the comparison of the contact parameters within the 70
contact parameters database begins again and responds in the way just described.

The 12 listing party may establish any number of responses based upon the information
5 provided by the 10 querying party. Based upon the information provided by the 10 querying
party which is in the form of response to a questionnaire:

(1) the 12 listing party may approve complete disclosure of their personal contact
information as stored in the 17 personal contact information directory database of the
10 18 bridge website server;

(2) the 12 listing party may specify a partial disclosure of their contact information;

(3) the 12 listing party may deny any disclosure but notify the 10 querying party that they
15 will contact the 10 querying party directly;

(4) the 12 listing party may deny any disclosure of personal information and request that
the 18 bridge website server solicit more complete identification information from the
10 querying party by sending another 66 questionnaire signal for the querying party
20 which will prompt the 10 querying party for more information;

(5) the 12 listing party may deny any disclosure but send a message to the 10 querying
party;

(6) the 12 listing party may deny any disclosure and not respond in any way to the 10 querying party; or,

(7) if the 9 web-based personal contact information system is also equipped with a 44 query notification signal as shown in Figure 1(a), the 12 listing party may arrange that the 5 18 web bridge server not forward any further 44 query notification signals from that same 10 querying party ever or for a specified time period.

The 9 web-based personal contact information system screens unwanted commercial 10 solicitations while permitting selective address disclosure to desired business and personal contacts. Alternatively, the 12 listing party may opt to agree to automatic address disclosure if the 10 querying party knows a predetermined specific piece or pieces of personal information about them.

15 A 44 query notification signal as shown in Figure 1(a) (and not shown in Figure 4) may be added as a supplemental feature so that the 12 listing party may be informed of the identity [or simply whether] a 10 querying party is trying to obtain their personal contact information.

The Claims

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In the following claims “the listing party” and “the querying party” are not claimed as elements of the claims. Rather they are included as limitations of signals to indicate the source of generation or the termination point of any given signal. It is the signal being generated or received, and not the listing or querying party generating or receiving the signal 25 that is claimed. Likewise, the “listing party’s computer” or the “querying party’s computer”